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EXAMINER	
KAO, JUTAI	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,130	BORNANT, DOMINIQUE	
	Examiner	Art Unit	
	Ju-Tai Kao	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-6 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-6 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 04 October 2004 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 10/04/2004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1-2 objected to because of the following informalities: grammatical error.

Claim 1 recites first allocating each serial line in a physical identifier; second allocating each group of serial lines in a logical identifier. The underlined portion should be replaced with "with".

Claim 1 also recites, "communicating with management means..." which should be replaced with "communicating with the management means..."

Claim 1 further recites "associating the physical identifier of the active serial line is associated with each logical identifier; ...and substituting the messages of the redundant system are transmitted to the application, substituting each physical identifier with the associated logical identifier". These two phrases are unclear as the underlined portions are repetitive and redundant.

Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the allocation, association, and substitution of logical and physical identifiers, the identifier correspondence table, the communication between server application and several client applications of the same workstation, and the continuous operation of the server

application must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2005/0036493) in view of Khalil (US 2003/0002468).

Wu discloses a method and an apparatus to facilitate independent protection switching in a distributed network including the following features.

Regarding claim 1, a process for communication with a redundant system (see "working lines" and "protection lines" recited in paragraph [0013]), comprising: one group of redundant serial lines (see "working lines" and "protection lines" recited in paragraph [0013]; and all lines W1, Wn, P1, etc. in Fig. 2), a serial line of said group being an active line, the other serial line of said group being an inactive line (see "a working line and a separately provided protection line in the event of a line failure of the working line" recited in paragraph [0006]; that is, there are an active working line and an inactive backup protection line in the system); means for managing the redundancy (see "translation module" recited in paragraph [0013]) by controlling the switching of the serial lines from an active to an inactive state and vice versa (see "When a line failure occurs in the physical line...the physical signals are rerouted onto the protection line" recited in paragraph [0013]; thus failed line becomes inactive and protection line becomes active) wherein, first allocating each serial line in a physical identifier (see "Physical identifiers for the signals on a number of working lines..." recited in paragraph [0013], thus each working line is allocated a physical identifier); second allocating each group of serial lines in a logical identifier (see "fixing a logical identifier...mapping...a first physical signal line to the logical identifier; and remapping...a second physical signal line to the logical identifier" as recited in claim 1, thus the two physical signal lines

forms a group of lines having one logical identifier); communicating with management means in order to determine the active serial lines (see "remapping comprises rewriting the cross connect table" recited in claim 2; and see translation module 104...may include a cross connect table" recited in paragraph [0012]; wherein the cross connect table shows the physical signal line associated with the logical STS IDs; the physical signal line mapped to the logical ID is thus the active line); associating the physical identifier of the active serial line is associated with each logical identifier (see when the signals arrive at the translation module, either on the working line or a protection line, they are mapped to the same logical egress identifier" recited in paragraph [0013]).

Regarding claim 2, wherein the association between logical identifier and physical identifier are stored in a correspondence table (see "cross connect table" recited in paragraph [0012], [0015] and claim 2).

Wu does not disclose the following features: regarding claim 1, transmitting the messages of an application to the redundant system, and substituting each logical identifier with the associated physical identifier; and substituting the messages of the redundant system are transmitted to the application, substituting each physical identifier with the associated logical identifier.

Khalil discloses a virtual private network identification extension including the following features.

Regarding claim 1, transmitting the messages of an application (see "The network software in the Network Layer" recited in paragraph [0016]) to the redundant system (see "physical address of the computer is a number given to computer's network

adapter card" recited in paragraph [0015]; which is analogous to the line card having physical line ports in Wu's invention), and substituting each logical identifier with the associated physical identifier (see "TCP/IP protocol routes information packets using logical addressing. The network software in the Network Layer...a logical address in the TCP/IP network is translated into a corresponding physical address using the ARP...protocols in the Network Layer" recited in paragraph [0016]); and substituting the messages of the redundant system are transmitted to the application, substituting each physical identifier with the associated logical identifier (see "TCP/IP protocol routes information packets using logical addressing. The network software in the Network Layer...a logical address in the TCP/IP network is translated into a corresponding physical address using the ...RARP...protocols in the Network Layer" recited in paragraph [0016], wherein the RARP protocol is the reverse of the ARP protocol and translates physical address to the logical address).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wu using features, as taught by Khalil, in order to provide translation and communication between the higher layer protocols with the lower layer protocols.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2005/0036493) in view of Khalil (US 2003/0002468) and Bortoloso (US 2003/0120782).

Wu discloses a method and an apparatus to facilitate independent protection switching in a distributed network including the following features.

Regarding claim 3, a device for communicating (see "line card" recited in paragraph [0012]) with a redundant system (see "working lines" and "protection lines" recited in paragraph [0013]) comprising: one group of redundant serial lines (see "working lines" and "protection lines" recited in paragraph [0013]; and all lines W1, Wn, P1, etc. in Fig. 2); a serial line of said group being an active line, the other serial line of said group being an inactive line (see "a working line and a separately provided protection line in the event of a line failure of the working line" recited in paragraph [0006]; that is, there are an active working line and an inactive backup protection line in the system); means for managing the redundancy (see "translation module" recited in paragraph [0013]) by controlling the switching of the serial lines from an active to an inactive state and vice versa (see "When a line failure occurs in the physical line...the physical signals are rerouted onto the protection line" recited in paragraph [0013]; thus failed line becomes inactive and protection line becomes active) wherein, allocates a physical identifier to each serial line (see "Physical identifiers for the signals on a number of working lines..." recited in paragraph [0013], thus each working line is allocated a physical identifier); allocates a logical identifier to each group of serial lines (see "fixing a logical identifier...mapping...a first physical signal line to the logical identifier; and remapping...a second physical signal line to the logical identifier" as recited in claim 1, thus the two physical signal lines forms a group of lines having one logical identifier); communicates with the management means in order to determine the active serial lines (see "remapping comprises rewriting the cross connect table" recited in claim 2; and see translation module 104...may include a cross connect table" recited

in paragraph [0012]; wherein the cross connect table shows the physical signal line associated with the logical STS IDs; the physical signal line mapped to the logical ID is thus the active line); associates the physical identifier of the active line with each logical identifier (see when the signals arrive at the translation module, either on the working line or a protection line, they are mapped to the same logical egress identifier" recited in paragraph [0013]).

Wu does not disclose the following features: regarding claim 3, a server application and one client application communicating together, in which the server application: transmits the messages of the client application to the redundant system, substituting each logical identifier with the associated physical identifier; and transmits the messages of the redundant system to the client application, substituting each physical identifier with the associated logical identifier.

Bortoloso discloses a computer system for client server inter process communication including the following features.

Regarding claim 3, a server application (see Fig. 1, server application 13) and one client application communicating together (see Fig. 1, server application 13 connected to client application 12 via communication bus 14 and 15).

Khalil discloses a virtual private network identification extension including the following features.

Regarding claim 3, transmits the messages of the client application (see "The network software in the Network Layer" recited in paragraph [0016]) to the redundant system (see "physical address of the computer is a number given to computer's network

adapter card" recited in paragraph [0015]; which is analogous to the line card having physical line ports in Wu's invention), substituting each logical identifier with the associated physical identifier to the redundant system (see "TCP/IP protocol routes information packets using logical addressing. The network software in the Network Layer...a logical address in the TCP/IP network is translated into a corresponding physical address using the ARP...protocols in the Network Layer" recited in paragraph [0016]); and transmits the messages of the redundant system to the client application, substituting each physical identifier with the associated logical identifier (see "TCP/IP protocol routes information packets using logical addressing. The network software in the Network Layer...a logical address in the TCP/IP network is translated into a corresponding physical address using the ...RARP...protocols in the Network Layer" recited in paragraph [0016], wherein the RARP protocol is the reverse of the ARP protocol and translates physical address to the logical address).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wu using features, as taught by Bortoloso and Khalil, in order to provide translation and communication between the higher layer protocols with the lower layer protocols.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2005/0036493) in view of Khalil (US 2003/0002468) and Bortoloso (US 2003/0120782) as applied to claim 3 above, and further in view of Ahmed (US 6,647,432).

Wu, Bortoloso and Khalil disclose the claimed limitations as shown in the rejection made to claim 3.

Bortoloso also disclose the following features: wherein the server application communicates with several client applications (see Fig. 1, where server application 13 communicates with client applications 10, 11, and 12).

Wu, Botoloso and Khalil do not disclose the following features: regarding claim 4, the several client applications are of one and the same workstation.

Ahmed discloses a distributed framework for intertask communication between workstation applications including the following features.

Regarding claim 4, the several client applications are of one and the same workstation (see "a single workstation 10 can therefore simultaneously execute a plurality of different client application programs 20" as recited in column 32, line 19-21).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wu, Bortoloso and Khalil using features, as taught by Ahmed, in order to enhance the efficiency in the use of available bandwidth and computing resources.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2005/0036493) in view of Khalil (US 2003/0002468) and Bortoloso (US 2003/0120782) as applied to claim 3 above, and further in view of Stein (US 5,497,463).

Wu, Bortoloso and Khalil disclose the claimed limitations as shown in the rejection made to claim 3.

Wu, Botoloso and Khalil do not disclose the following features: regarding claim 5, wherein the server application operates continuously.

Stein discloses an ally mechanism for interconnecting non-distributed computing environment (DCE) and DCE systems to operate in a network system including the following features.

Regarding claim 5, wherein the server application operates continuously (The server side of the application is a dedicated process that runs continuously..." recited in column 9, line 38-41).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wu, Bortoloso and Khalil using features, as taught by Stein, in order to allow the server to be responsive to the client requests at all time.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (US 2005/0036493) in view of Khalil (US 2003/0002468), Bortoloso (US 2003/0120782) and Ahmed (US 6,647,432) as applied to claim 4 above, and further in view of Stein (US 5,497,463).

Wu, Bortoloso, Khalil and Ahmed disclose the claimed limitations as shown in the rejection made to claim 4.

Wu, Botoloso Khalil and Ahmed do not disclose the following features: regarding claim 6, wherein the server application operates continuously.

Stein discloses an ally mechanism for interconnecting non-distributed computing environment (DCE) and DCE systems to operate in a network system including the following features.

Regarding claim 6, wherein the server application operates continuously (The server side of the application is a dedicated process that runs continuously..." recited in column 9, line 38-41).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wu, Bortoloso, Khalil and Ahmed using features, as taught by Stein, in order to allow the server to be responsive to the client requests at all time.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chaudhuri (US 6,587,235) discloses the method for capacity-efficient restoration in an optical communication system.

Eteminan (US 2005/0025149) discloses the system for dispatching information packets and method therefor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ju-Tai Kao whose telephone number is (571)272-9719. The examiner can normally be reached on Monday ~Friday 7:30 AM ~5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571)272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ju-Tai Kao

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER